

AMENDMENTS TO THE CLAIMS

1. (currently amended) A method for producing protein-coated polystyrene microparticles comprising the steps of:
  - (a) combining a suspension of uncoated polystyrene microparticles with a protein to form a combination, the protein being a partner of a bioaffinity binding pair and having a size from 10 nm to 300 nm as determined by photon correlation spectroscopy,
  - (b) ~~adjusting the pH of the combination from (a) to 10.5 to 12.5 and incubating the combination for a period of time whereby~~ coating the protein is coated onto the microparticles by adsorption under strongly alkaline conditions, wherein the pH of said combination is between 10.5 and 12.5, and
  - (c) separating the non-adsorbed protein from the protein-coated microparticles.
2. (previously presented) The method of claim 1, wherein the protein has been polymerized by chemical treatment.
3. (previously presented) The method of claim 1, wherein the protein is a streptavidin which has been polymerized by chemical treatment.
4. (cancelled)
5. (original) The method of claim 1, wherein the microparticles have a magnetizable core.
6. (cancelled)
7. (cancelled)
8. (cancelled)
9. (new) The method of claim 1 wherein the protein has a size of 20 nm to 250 nm.
10. (new) The method of claim 1 wherein said coating step is conducted for a period of 1 to 10 days.

11. (new) The method of claim 10 wherein said coating step is conducted for a period of 4 to 7 days.
12. (new) The method of claim 10 wherein the pH of said suspension is between 11 and 12.
13. (new) The method of claim 1 wherein said coating step is conducted with a buffer having a salt content of about 0.3 to about 1.5 M.
14. (new) The method of claim 9 wherein the pH of said combination from step (a) is adjusted to a pH between 10.5 and 12.5, said protein is polymerized streptavidin, and the coating step is conducted for a period of 1 to 10 days.
15. (new) A method for producing protein-coated polystyrene microparticles consisting of the steps of:
  - (a) forming a suspension of uncoated polystyrene microparticles and a protein in the presence of strongly alkaline conditions, to adsorb the protein onto the microparticle, wherein the protein is a partner of a bioaffinity binding pair and has a size from 10 nm to 300 nm, and the pH of said suspension between 10.0 and 12.5, and
  - (b) separating the non-adsorbed protein from the protein-coated microparticles.
16. (new) The method of claim 15 further comprising the step of incubating said suspension for a length of time selected from about 4 to about 7 days prior to said separation step.
17. (new) The method of claim 16 wherein said coating step is conducted with a buffer having a salt content of about 0.3 to about 1.5 M.
18. (new) The method of claim 16 wherein the microparticles have a size of about 2.8  $\mu\text{m}$  and consist essentially of about 88% polystyrene and 12% magnetite.
19. (new) The method of claim 18 wherein the pH of said suspension is adjusted to a pH value between 10.0 and 12.5, and said protein is polymerized streptavidin.